IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with strikethrough. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claim 9, 13 and 15 without prejudice or disclaimer and AMEND claims 1, 2, 10, 11, 17 and 19-27 in accordance with the following:

1. (Currently Amended) An organism characteristic data acquiring apparatus for acquiring organism characteristic data, for at least one of registration organism characteristic data storage and an authentication unit for authenticating the identification object person, from each of an identification object person and/or a registration object person to authenticate the identification object person based on the organism characteristic data, comprising:

a sampling section for sampling a partial image of a portion of an organism from each of the identification object person and/or the registration object person;

a detection section for detecting, every time a partial image is sampled by said sampling section, a relative positional relationship between the partial image and one of other partial images sampled already;

an extraction section for extracting, every time a partial image is sampled by said sampling section, characteristic portion data including characteristic information unique to the organism portion from the partial image; and

a synthesis section for synthesizing, every time a partial image is sampled by said sampling section, the characteristic portion data of the partial image extracted by said extraction section and characteristic portion data of the other partial image based on the relative positional relationship of the partial image detected by said detection section and outputting a result of the synthesis as organism characteristic data of the portion of the organism for the at least one of registration organism characteristic data storage and an authentication unit for authenticating the identification object person.

2. (Currently Amended) The organism characteristic data acquiring apparatus as claimed in claim 1, wherein said sampling section samples a partial image of a pattern formed from a ridge of on the portion of the organism.

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3. (Original) The organism characteristic data acquiring apparatus as claimed in claim 2, wherein said extraction section extracts, as the characteristic portion data, information regarding a characteristic point of the ridge.

4. (Original) The organism characteristic data acquiring apparatus as claimed in claim 3, wherein said extraction section extracts, as the information regarding a characteristic point of the ridge, at least one of a position, a type and a direction of the characteristic point.

5. (Original) The organism characteristic data acquiring apparatus as claimed in claim 3, wherein said extraction section extracts, as the characteristic portion data, a position of a sweat gland which exists on the ridge.

6. (Original) The organism characteristic data acquiring apparatus as claimed in claim 3, wherein said extraction section extracts, as the characteristic portion data, a number of sweat glands which exist between the characteristic points on the ridge.

7. (Original) The organism characteristic data acquiring apparatus as claimed in claim 3, wherein said extraction section extracts, as the characteristic portion data, a position of a ridge end which is at an end of the partial image.

8. (Original) The organism characteristic data acquiring apparatus as claimed in claim 7, wherein said extraction section extracts, as the characteristic portion data, information of a connectional relationship between the characteristic point and the ridge end.

9. (Cancelled)

10. (Currently Amended) The organism characteristic data acquiring apparatus as claimed in claim 9 claim 2, wherein said extraction section extracts, as the ridge structure data, a skeleton line image obtained by thinning the image of the ridge.

11. (Currently Amended) The organism characteristic data acquiring apparatus as claimed in claim 9 claim 2, wherein said extraction section extracts, as the ridge structure data, a binary image obtained by binarizing the image of the ridge.

12. (Original) The organism characteristic data acquiring apparatus as claimed in claim 2, wherein said detection section detects, as the relative positional relationship, a positional relationship of superposition between the partial image and the other partial image such that ridges same as each other in the partial image and the other partial image are smoothly connected to each other.

13. (Cancelled)

14. (Original) The organism characteristic data acquiring apparatus as claimed in claim 2, wherein said detection section detects, as the relative positional relationship, a corresponding relationship of the ridges same as each other in the partial image and the other partial image.

15. (Cancelled)

16. (Original) The organism characteristic data acquiring apparatus as claimed in claim 1, wherein said sampling section samples the partial image by replacing the organism portion on a sampling face by a plural number of times for sampling a partial image, and wherein
characteristic portion data regarding a partial image, having an area which has a side shared by or overlaps with at least one of the other partial images, from among a plurality of partial images sampled by said sampling section is used as an object of the synthesizing process by said synthesis section.

17. (Currently Amended) The organism characteristic data acquiring apparatus as claimed in ~~claim 9~~ claim 2, wherein said sampling section samples the partial image by replacing the organism portion on a sampling face by a plural number of times for sampling a partial image, and wherein
characteristic portion data regarding a partial image, having an area which has a side shared by or overlaps with at least one of the other partial images, from among a plurality of partial images sampled by said sampling section is used as an object of the synthesizing process by said synthesis section.

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18. (Original) The organism characteristic data acquiring apparatus as claimed in claim 1, wherein said sampling section samples the partial image while the organism portion is relatively moved with respect to a sampling face for sampling a partial image, and wherein

characteristic portion data regarding a partial image, having an area which has a side shared by or overlaps with at least one of the other partial images, from among a plurality of partial images sampled by said sampling section is used as an object of the synthesizing process by said synthesis section.

19. (Currently Amended) The organism characteristic data acquiring apparatus as claimed in ~~claim 9~~ claim 2, wherein said sampling section samples the partial image while the organism portion is relatively moved with respect to a sampling face for sampling a partial image, and wherein

characteristic portion data regarding a partial image, having an area which has a side shared by or overlaps with at least one of the other partial images, from among a plurality of partial images sampled by said sampling section is used as an object of the synthesizing process by said synthesis section.

20. (Currently Amended) An authentication apparatus <u>for authenticating an object person of authentication based on the organism characteristic data</u>, comprising:

a sampling section for sampling a partial image of a portion of an organism of ~~an~~ <u>the</u> object person of authentication;

a detection section for detecting, every time a partial image is sampled by said sampling section, a relative positional relationship between the partial image and one of other partial images sampled already;

an extraction section for extracting, every time a partial image is sampled by said sampling section, characteristic portion data including characteristic information unique to the organism portion from the partial image;

a synthesis section for synthesizing, every time a partial image is sampled by said sampling section, the characteristic portion data of the partial image extracted by said extraction section and characteristic portion data of the other partial image based on the relative positional relationship of the partial image detected by said detection section and outputting a result of the synthesis as organism characteristic data of the portion of the organism; and

a collation section for executing a collation process using the organism characteristic data from said synthesis section in order to perform personal identification of the object person of authentication and outputting a result of the collation process as an authentication result.

21. (Currently Amended) An authentication apparatus for authenticating an object person of authentication based on the organism characteristic data, comprising:

a sampling section for sampling a partial image of a pattern formed from a ridge on a portion of an organism of an the object person of authentication;

a detection section for detecting, every time a partial image is sampled by said sampling section, a relative positional relationship between the partial image and one of other partial images sampled already;

a ridge structure data extraction section for extracting, every time a partial image is sampled by said sampling section, ridge structure data including characteristic information unique to the organism portion from the partial image;

a synthesis section for synthesizing, every time a partial image is sampled by said sampling section, the ridge structure data of the partial image extracted by said ridge structure data extraction section and ridge structure data of the other partial image based on the relative positional relationship of the partial image detected by said detection section and outputting a result of the synthesis;

a characteristic data extraction section for extracting characteristic data unique to the organism portion from the result of the synthesis outputted from said synthesis section; and

a collation section for executing a collation process using the characteristic data extracted by said characteristic data extraction section in order to perform personal identification of the object person of authentication and outputting a result of the collation process as an authentication result.

22. (Currently Amended) An organism characteristic data acquiring method, for acquiring organism characteristic data from each of an identification object person and/or a registration object person to authenticate the identification object person based on the organism characteristic data, the method comprising:

a sampling step of sampling a partial image of a portion of an organism of each of the identification object person and/or the registration object person;

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a detection step of detecting, every time a partial image is sampled at the sampling step by said sampling, a relative positional relationship between the partial image and one of other partial images sampled already;

an extraction step of extracting, every time a partial image is sampled at the sampling step by said sampling, characteristic portion data including characteristic information unique to the organism portion from the partial image; and

a synthesis step of synthesizing, every time a partial image is sampled at the sampling step by said sampling, the characteristic portion data of the partial image extracted at the extraction step by said extracting and characteristic portion data of the other partial image based on the relative positional relationship of the partial image detected at the detection step by said detecting and outputting a result of the synthesis as organism characteristic data of the portion of the organism and outputting a result of the collation process as an authentication result.

23. (Currently Amended) An The organism characteristic data acquiring method according to claim 22, wherein, comprising: a sampling step of sampling a partial image of a pattern formed from a ridge on a the portion of an the organism; a detection step of detecting, every time a partial image is sampled at the sampling step, a relative positional relationship between the partial image and one of other partial images sampled already; an extraction step of extracting, every time a partial image is sampled at the sampling step, ridge structure data including characteristic information unique to the organism portion from the partial image; and a synthesis step of synthesizing, every time a partial image is sampled at the sampling step, the ridge structure data of the partial image extracted at the extraction step and ridge structure data of the other partial image based on the relative positional relationship of the partial image detected at the detection step and outputting a result of the synthesis as organism characteristic data of the portion of the organism is sampled by said sampling.

24. (Currently Amended) An organism characteristic data acquiring program for acquiring organism characteristic data, for at least one of registration organism characteristic data storage and an authentication unit for authenticating the identification object person, from each of an identification object person and/or a registration object person to authenticate the identification object person based on the organism characteristic data, which causes a computer to function as:

a detection section for detecting, every time a partial image is sampled by a sampling section for sampling a partial image of a portion of an organism, from each of the identification

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object person and/or the registration object person, a relative positional relationship between the partial image and one of other partial images sampled already;

an extraction section for extracting, every time a partial image is sampled by said sampling section, characteristic portion data including characteristic information unique to the organism portion from the partial image; and

a synthesis section for synthesizing, every time a partial image is sampled by said sampling section, the characteristic portion data of the partial image extracted by said extraction section and characteristic portion data of the other partial image based on the relative positional relationship of the partial image detected by said detection section and outputting a result of the synthesis as organism characteristic data of the portion of the organism for the at least one of registration organism characteristic data storage and an authentication unit for authenticating the identification object person.

25. (Currently Amended) An organism characteristic data acquiring program which according to claim 24, wherein when said program causes a the computer to function as: a detection section for detecting, every time a partial image is sampled by a sampling section for sampling the sampling section, said program causes the computer to sample a partial image of a pattern formed from a ridge on a the portion of an the organism, a relative positional relationship between the partial image and one of other partial images sampled already; an extraction section for extracting, every time a partial image is sampled by said sampling section, ridge structure data including characteristic information unique to the organism portion from the partial image; and a synthesis section for synthesizing, every time a partial image is sampled by said sampling section, the ridge structure data of the partial image extracted by said extraction section and ridge structure data of the other partial image based on the relative positional relationship of the partial image detected by said detection section and outputting a result of the synthesis as organism characteristic data of the portion of the organism.

26. (Currently Amended) A computer-readable recording medium on which an organism characteristic data acquiring program for acquiring organism characteristic data, for at least one of registration organism characteristic data storage and an authentication unit for authenticating the identification object person, from each of an identification object person and/or a registration object person to authenticate the identification object person based on the organism characteristic data is recorded, said program causing a computer to function as:

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a detection section for detecting, every time a partial image is sampled by a sampling section for sampling a partial image of a portion of an organism from each of the identification object person and/or the registration object person, a relative positional relationship between the partial image and one of other partial images sampled already;

an extraction section for extracting, every time a partial image is sampled by said sampling section, characteristic portion data including characteristic information unique to the organism portion from the partial image; and

a synthesis section for synthesizing, every time a partial image is sampled by said sampling section, the characteristic portion data of the partial image extracted by said extraction section and characteristic portion data of the other partial image based on the relative positional relationship of the partial image detected by said detection section and outputting a result of the synthesis as organism characteristic data of the portion of the organism for the at least one of registration organism characteristic data storage and an authentication unit for authenticating the identification object person.

27. (Currently Amended) A The computer-readable recording medium on which an organism characteristic data acquiring program is recorded according to claim 26, wherein when said program causing causes a the computer to function as: a detection section for detecting, every time a partial image is sampled by a sampling section for sampling the sampling section, said program causes the computer to sample a partial image of a pattern formed from a ridge on a the portion of an the organism, a relative positional relationship between the partial image and one of other partial images sampled already; an extraction section for extracting, every time a partial image is sampled by said sampling section, ridge structure data including characteristic information unique to the organism portion from the partial image; and a synthesis section for synthesizing, every time a partial image is sampled by said sampling section, the ridge structure data of the partial image extracted by said extraction section and ridge structure data of the other partial image based on the relative positional relationship of the partial image detected by said detection section and outputting a result of the synthesis as organism characteristic data of the portion of the organism.

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